

UNIVERSITY OF MICHIGAN

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DEPARTMENT OF ZOOLOGY

October 8, 1953

Prof. Joshua Lederberg
Department of Genetics
University of Wisconsin
Madison 6, Wisconsin

Dear Dr. Lederberg:

I was intending to send you my reprints, but had delayed - expecting to have more soon. However, I am sending what I have at the moment and will send others as they come in.

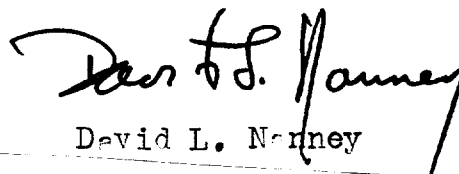
I should have reprints soon on the August Biol. Bull. article and an October PNAS item. The others will probably be delayed some months.

In regard to the Paramecium mating type story, a word of caution is required. The ploidy hypothesis has been largely discredited through the following facts:

- 1) Predictions on the results of haploidy have not come out as expected in Sonneborn's recent experiments.
- 2) Mating types in Tetrahymena seem to be inherited in much the same manner as in Paramecium (cytonidial inheritance), but instead of two mating types, at least seven are available. This stretches the ploidy plausibility.
- 3) I have been unable thus far to detect any real difference in total DNA content in cells of different mating types in P. aurelia. This work is still in progress, but I'm largely convinced.

I consider, therefore, the specific treatment of the mating system outlined in the article for PNAS no longer tenable, but consider the general interpretation - nucleus controlling the cytoplasm and cytoplasm controlling nucleus in a cyclical interaction - to be undisturbed by recent developments.

Best wishes,


David L. Nanney